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OPPORTUNITIES FOR VERTICAL DIVERSIFICATION IN THE FOOD PROCESSING SECTOR IN DEVELOPING COUNTRIES

Report by the UNCTAD Secretariat

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I. INTRODUCTION

1. This report examines the market opportunities and particular constraints faced by developing countries in diversifying into food processing in four major areas, namely horticulture, fish, meat, and tropical beverage processing industries. It highlights trade opportunities in specific products and locations,

Table : World trade in selected food products

Product	World Trade Millions (US$) (1995)	Annual growth Percent (1991-1995)
Fresh, chilled, frozen meat	37,718	6.1
Dried, salted, smoked meat	1,582	1.7
Prepared or preserved meat	5,789	5.5
Fresh, chilled, frozen fish	17,818	4.0
Salted, dried, smoked fish	2,763	4.3
Prepared or preserved fish	8,526	8.5
Fresh, frozen shellfish	16,943	8.8
Fresh or simply preserved vegetables	23,878	6.1
Prepared or preserved vegetables	6,494	6.8
Fresh or dried fruit and nuts	27,512	6.1
Prepared or preserved fruit	11,917	6.2
Coffee and substitutes	14,937	15.4
Cocoa	4,962	5.8
Chocolate and products	7,828	15.3
Tea and mate	2,086	-3.7
Memo item: Total world exports in goods	4,919,183	9.5
Of which: developing countries' total exports	1,365,730	13.0

Source: UNCTAD database, based on Comtrade.

and considers the prospects of diversifying into food processing in the framework of world markets and the worldwide trading system. It also presents successful experiences which may help governments and enterprises in devising and implementing their strategies, policies and actions.

2. Given the rapid expansion of exports as well as the high dependence of many developing countries on agriculture and agro-based industries both for employment and exports, the development of export-oriented food processing is of special interest.

3. The table indicates the overall values in world trade for selected food groups. Unfortunately, recent data do not yet allow up-to-date global trade data disaggregation by processed and unprocessed products. The table suggests that, in aggregate, the foods sector is not as dynamic as the manufacturing sector in world trade. With a few exceptions, its growth rates have been below the growth performance of total goods exports.

4. However, partial data covering earlier periods seem to indicate, for some product groups, a faster growth rate in the trade of processed food products. Thus, for example, imports of processed agricultural products into the OECD grew by 5.4 per cent over the 1990s as against 2 per cent for unprocessed products. The share of processed products in total OECD food imports increased from 23 per cent (1980/82) to 29 per cent (1990/92). This change in composition was due largely to growth in the trade of prepared cereal products, processed vegetables and fruit and other edible products and preparations[1]. These figures do not reflect trends and opportunities for trade in food products in economies in transition and developing countries, where, as the report makes clear, new trading opportunities are opening up for selected processed food product groups.

II. TRADE OPPORTUNITIES IN THE FOUR PRODUCT GROUPS[2]

A. **Horticulture products**

1. Market Opportunities

5. World trade in processed horticultural products increased between 1991 and 1995 from $13,006 million to $14,887 million and it is predicted that the overall market will continue to grow. In general, the world market for fruit juices, the largest group, is expected to show further growth in the future, inter alia because of the current low per capita consumption in some growing markets, and

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[1] See OECD, Committee for Agriculture, The Uruguay Round and Processed Agricultural Products, OECD 1997 (AGR/CA(96)23:3), pp. 3-9.

[2] This section draws largely on studies prepared for UNCTAD, notably John Giles, *Trade Opportunities in the International Processed Horticulture Markets*; Rudy Kortbech-Olesen, "World Trade in Processed Tropical Fruits"; Helga Josupeit, *Trade Opportunities for Processed Fish*; Lionel J. Colby, *Trade Opportunities for Processed Meat*; and LMC International, *Trade Opportunities in the World Beverage Sector*. Data on tariff rates are taken from these studies and from the UNCTAD database on trade control measures (TRAINS).

a growing health consciousness in most markets. The world demand for orange juice, the largest single item, is still growing strongly, especially in the Netherlands, Japan, Poland and some South-East Asian markets including the Republic of Korea, Philippines and Thailand. For apple juice, strong growth in demand is observed in the German, Japanese and some South-East Asian markets. As for tropical fruit juices, concentrates and pulp/puree, traders expect sales of these products to grow at least at the same rate as the juice market as a whole, and in some cases even more. The fruit juice and related food industries are expected to benefit from the increasing interest in tropical fruit, including fresh produce, in most markets.

6. With regard to some other important products in which developed countries are major producers along with developing ones, in the case of frozen strawberries, of which the United States of America is currently the main supplier, opportunities can be exploited by developing countries by taking advantage of low costs of production. The world demand for sweetcorn has been increasing steadily, with opportunities emerging for value added products such as sweetcorn with added meat and sauces. Processed beans and canned mushrooms present modestly growing opportunities with the main markets being the European Union (EU) and other industrialized countries.

7. In 1996, total trade in tropical fruits reached an estimated $1,250 million. The major markets are the EU, the United States and Japan, with small growing markets in South-East Asia and Latin America. With total world imports amounting to $612 million, canned pineapple is the largest item of any tropical fruit traded. International trade in pineapple juice shows considerable fluctuations due to supply variations, but amounted to $280 million in 1995.

8. There are obvious attractions for developing countries (with a tropical climate) in pursuing the opportunities in the processed tropical products market, especially for pineapple, mango, papaya and banana, which form the backbone of trade in tropical products, and other minor products such as lychees, rambutan, jackfruit, and vegetable products, such as okra. There is also a growing demand in several European markets for tropical fruit salads due to a general interest in tropical products among consumers. Processors also seem to be pushing this product more aggressively than in the past, as a means of diversifying their exports. Two-fruit products (e.g. papaya/mango) are increasingly being introduced in major markets, which is likely to increase overall sales of canned tropical fruit.

9. There is also a growing market for frozen tropical fruit products, such as pineapple and papaya for example, for use in bakery and dairy products and baby foods. A small market already exists for tropical jams, syrups and other retail tropical fruit products. These are usually produced by manufacturers in the developed countries from imported raw material.

10. In mature markets such as *the EU, the United States and Japan* there will be a continual search for new products and product innovation, high-value niche products and new packaging formats. This is coupled with identifying lower-cost sources of supply and developing strategic alliances with suppliers and highly professional processing and export companies. There will also be continued interest among consumers in healthy eating and drinking; the juice sector lends

itself to this in particular. Prospects for products used in health foods (e.g. dried fruit) are also good. Continued demand for consumer convenience in the preparation of food will stimulate interest in, and demand for, frozen products, and associated products such as boil-in-the-bag, microwave-ready, and chilled foods.

11. Most major international markets such as the EU and the United States have well-established and sophisticated processing industries (e.g. blenders, bottlers, canners, bakers, dairies) producing final and intermediate products. These all require raw materials or basic processed horticultural products as inputs and have long-established supply relationships with producer countries. They also have well-developed marketing and distribution networks together with established brand names for canning (i.e. Del Monte, Dole, Libby, Princes) and for juices (Schweppes/Coca Cola, Gerber, Eurocitrus, Del Monte, Passi, Eckes, Cargill, Granini, Riedl, Wild). Most of the trade takes place in "bright cans" where the importer attaches its own label on the imported product. Nevertheless, Thailand and Philippines have been successful in exporting labelled products. Trout Hall, based in Jamaica, has also succeeded in supplying branded citrus products.

12. The large companies based in developed countries are relatively conservative, and constitute strong lobbies against fundamental change of existing distribution structures. Non-tariff barriers and costs of market entry of branded goods are generally at very high levels. Their major suppliers from outside the EU are Brazil, Israel, South Africa, United States, Thailand, China, Mexico, Philippines and Kenya. Poland is the main supplier from Eastern Europe. The Andean countries also feature, especially with their duty free privileges. Intra-EU main suppliers are Italy, Spain, France, Belgium, Luxembourg, Greece and the Netherlands.

13. In *Eastern Europe* an import and retail structure is beginning to emerge, but the importation of high-value processed horticultural products is still constrained by relatively low per capita incomes. Poland, Hungary and the Czech Republic have the most advanced distribution structures, although there is still a lack of market transparency.

14. *Russian Federation and other CIS* countries also represent markets of considerable potential interest to developing countries. Whereas in Eastern Europe, a structure for the import and distribution of processed horticultural products has begun to emerge, the situation in these countries is much less established. A great deal of fluidity still exists in the operation of the market, combined with a good deal of complex, and sometimes controversial, market regulation, particularly for imported products. So far, it is mostly the major multinational companies that have been able to develop any form of successful business in the Russian market.

15. In *South-East Asia* strong economic growth along with a relatively large and rapidly expanding population base has attracted a great deal of interest from Western investors in all areas of the agricultural and food chain, especially in processing and distribution. Although the level of imports in most cases is relatively low for processed horticultural products, in some markets (e.g. Republic of Korea, for the import of orange juice, frozen vegetables and canned

mushrooms) there has been significant growth in the value of trade over the last 5 years. This may well present interesting future opportunities for developing-country suppliers, especially those that enjoy relative geographic proximity.

2. Market access and entry conditions

16. In the case of *European Union*, import tariffs are an important constraint on imports. The MFN applied rates in 1996 show a relatively high degree of protection with regard to processed horticulture products: the simple average of the tariff rates for these products is 15 per cent, far above the estimated average tariff rate for all imports of 9 per cent. These tariffs vary considerably between products and sources of supply and also between countries. Access is generally duty free for ACP countries. Least developed countries and Andean Pact countries (Bolivia, Colombia, Ecuador, Peru) also have duty-free access to the EU. Although ACP countries get tariff advantages, it is non-ACP sources that are the market leaders, notably Brazil, Thailand and Philippines. Only Swaziland, Côte d'Ivoire, Kenya and Jamaica - of the ACP suppliers - have made any serious inroads.

17. Apart from tariffs, additional levies are applied on certain products such as canned mushrooms, frozen strawberries and dried grapes. Moreover, a levy is applied to take account of added sugar contained in certain processed products. Minimum import prices are also applied as part of the basic EU processed fruit and vegetable regime for dried grapes and processed cherries, but this will be removed by the year 2000. As in most developed-country markets, there are regulations which specify the types of packs that are acceptable and the information that labels must contain, and health regulations which are often justified both in terms of hygienic conditions and the use of harmful chemical additives, pesticides and fertilizers, but which can be so complicated and restrictive that they act as barriers for developing country suppliers.

18. *The United States* has a wide range of tariffs on processed fruit and vegetables, which are high for some products (e.g.24.4 per cent MFN rate on dried onions). For some products, preferences are granted under the GSP and LDC schemes. There are few quantitative restrictions on imports of processed fruits and vegetables to the United States. "Due diligence" requires that all processed fruit and vegetables products entering the United States are subject to inspection by the Food and Drug Administration (FDA) which is especially concerned with extraneous materials and pesticide residues in imported fruit and vegetable products.

19. *Japan* has MFN, preferential and temporary tariffs on fresh and processed vegetables. The average of applied MFN rates in 1996, for certain vegetable preparations and fruits, as well as fruit juices is 20 per cent, which is considerably above the overall average of 7 per cent. Currently, some products enter duty free but the number of duty-free items will increase as a result of the full implementation of the Uruguay Round Agreements. The trade in many items has been liberalized with the removal of quantitative restrictions on imports during the early 1990s. For example, import quotas were removed from orange juice in April 1992. However, certain processed fruit and vegetable products will continue to face higher tariffs and seasonal import duties. In Japan, the Food Sanitation Law, often referred to as the Japan Agriculture Standards (JAS), seeks

to ensure the safety of goods and sets minimum quality requirements for food agricultural, fishery and forestry products, and regulates the use of food additives. In this context, all shipments of processed foods must be accompanied by a complete list of ingredients, including food additives, and a description of the manufacturing process used to process the food.

20. In general, several factors make it difficult for developing countries to compete with exporters from the United States, EU and Israel, all of which have substantial horticultural processing industries. Further competition is also emerging from Eastern Europe for some temperate-zone processed products. Owing to costs in terms of financial, physical and human resources, trade is increasingly being dominated either by large multinational companies or by well-established individual export companies. Nevertheless, successful experiences by small firms exist. In the Dominican Republic, for example, some small and medium-scale processors and exporters have formed a marketing group in order to upgrade the overall level of their technical operations, broaden their product range, achieve economies of scale in both physical distribution and marketing, and rationalize transaction costs in target markets. Their success has required a great deal of commitment and discipline from the members.

21. Chile, for example, has had considerable success in entering the EU markets for fresh and frozen fruit and vegetable markets despite trade barriers. Chile has traditionally been an important fruit and vegetable producer. As foreign investment in the fresh and processed fruit industry was attracted by government policies since the 1970s, and trade opportunities were grasped, this sector grew steadily. Success was helped by the exporters specifically targeting quality markets and products; large volumes which allowed it to diversify markets; the existence of an efficient industry association which is involved in negotiations with the growers association, and with the government to promote the interests of exporters; and good logistics which is particularly important given Chile's distance from the main markets.

22. With respect to finance for investment into food processing, typical minimum investment costs for a medium-sized processing plant would normally be in the range of US$5 million. For larger plants it could easily be well in excess of this figure. Thus, capacity utilization is particularly important. Successful companies in Thailand, for example, process more than one product in their factories in order to prevent extended idle periods for want of input. For larger processors aiming at the international markets, raw material needs are very large and dedicated supplies specially grown for these processors need to be secured. Processors in Brazil, South Africa, Poland, Turkey, Mexico and Israel have been able to organize such linkages which enable them to undertake long-term commitments for specific quantities as required by the importers.

23. Some developing countries continue to face severe infrastructural problems. Domestic and international transport needs to be rapidly available. Distances from farm to factory cannot be too long and the location of factories must be consistent with source of raw materials or point of exit.

B. **Fish**

1. Market opportunities

24. In 1995, world trade in all fisheries products for human consumption amounted to approximately US$46 billion. More than 90 per cent of all fisheries trade is in processed form. Trade in frozen fish strongly increased in the 1980s and accounts for 40 per cent of the total fish trade. Frozen crustaceans - that is shrimp, crabs and lobster - are the second major group, representing 38 per cent of international trade. Notably, shrimp are produced primarily for export, and as much as 90 per cent of production is exported. Canned fish accounts for about 10 per cent of trade. Canned tuna is the main export item, but trade in canned crustaceans has grown rapidly over the last 10 years. Fishmeal and fish oil have a 7 per cent share in international trade. About 85 per cent of total exports are directed to Japan, EU and the United States.

25. *Japan* is the main importer of fish. Traditionally, Japanese consumers have been reluctant to purchase imported processed fish, although there is a demand for processed products including dried squid, fried and steam-boiled eel fillets, dried seaweed, flavoured herring roe, fish eyes, stomachs, and fried skipjack. Changes are taking place in Japanese import patterns and more processed fish enters the Japanese market.

26. The *United States* market for fishery products is expected to expand in the coming years owing in part to the health consciousness of the consumers who now recognize the positive impact of fish on health. The United States, which is a net importer of fish in the order of some US$3,700 million annually as an average of 1991-1995, imports semi-processed or raw material fish for its processing plants.

27. The *EU* is another large market, with France, Spain, Germany and Italy as main seafood-importing countries. However, trade barriers cause more important constraints to trade than in other main importing regions.

28. In many developed countries, food habits are changing. "Heat and eat" fishery products may well prove to be the emerging niche, because it is the convenient answer to consumers' objection to fish preparation and smell. As a result, in recent years, a whole array of innovative fish products have been developed and successfully marketed. Examples include breaded hake fillet produced in Argentina and Uruguay for the main European brands; cooked and peeled shrimps on a plastic ring, and canned tuna from Thailand for the United States, EU and Japanese markets; and canned sardines from Morocco. The Pacific Islands are exporting to Japan tuna eyes, stomachs etc., which have a significant demand for health reasons. Denmark has processed specialty eels for the Japanese market. The United States market has been particularly innovative in inventing fast food processed fish products such as the salmon burger, a low-fat hamburger containing seaweed, and other fish products. Others are the fish chips consisting of thin tortilla chips with slices of Alaska Pollack, salmon steaks, salmon croquettes, salmon dollars, salmon ravioli, pre-fried shrimp, ready-to-eat shrimp cocktail, and fully seasoned, ready-to-cook marinated catfish fillets. The United States is also the main producing country of surimi, a fish paste, formed into fish and non-fish products, and it supplies more than half of the world total.

29. In certain cases the name given to the product affects market prospects. For example, the United States market for squid boomed after the product started to be called calamari. The United States, which was a significant squid exporter, is now a net importer. Another example in the same vein is Chilean exports of conger eel to the United States. While the English name was found unattractive, promotion of the same product under the Spanish name "congrio" led to considerable success.

30. The acceptability of the product also depends on its physical qualities. For example, the giant squid resources of Peru and Mexico were neglected for a long time, as the size of the squid which may be over one metre, was too big for traditional preparations. Peru granted fishing rights to the Republic of Korea and Japan, whose fleets exploited the resources and technologists developed a much more acceptable product by cutting the huge squid into smaller squares, bleaching and tenderizing it. This relatively inexpensive product has made successful inroads to the Spanish and Italian markets, particularly the catering sector.

31. The exports of hake fillets from Argentina is a significant example of successful entry into processed fish markets by a developing country. In this case, the producers are able to guarantee regular supply in large quantities which enters the EU from Argentina duty-free as part of the fisheries agreement. Close coordination and cooperation also exist between the supplier and the producer in the importing country where the product is re-processed. The plants in the origin country were selected by the European distributor, and the quality of the products is checked on a continuous basis by the buying company.

32. The market for fish is expected to grow in South-East Asian countries and fish processing companies in the region are targeting domestic and neighbouring countries. A successful example in this regard is a joint venture company in Thailand between Thai and Norwegian interests. Production is for supermarkets in Thailand and Singapore, and comprises frozen speciality products such as tempura fish fillets, graded fish portions, battered calamari, and batter-fried shrimps. Shrimps comes from Thai shrimp farms, calamari are caught in the Gulf of Thailand, and, interestingly, fish products are produced from relatively unusual species. The growth in sales of these consumer packs is reported to be 10-20 per cent per year.

33. Thailand has become the main canned tuna producer in the world although it has no domestic tuna production and imports all the raw materials. Relatively low labour costs have also contributed to this success. The high quality of the product and the low price have been the main attraction and Thailand has been more competitive than the ACP countries in the EU market, though it faced tariffs of 24 per cent and in some years import quotas, while canned tuna from ACP countries could enter the EU market duty and quota free. The main export markets for Thai canned tuna are the United States, EU and Japan. India, which is world's largest producer of wild shrimp, has managed to increase its output of frozen products substantially owing to the introduction of sophisticated technologies.

34. Developing-country processors have advantages over those in developed countries such as low labour costs, high quality and lower prices of raw

materials. In order to take full advantage of these factors, producers and exporters in developing countries have to demonstrate that they are able to guarantee quality, continuity of supply, delivery efficiency and price stability. The most successful formula for the future of the fish processing industry could be the collaboration between producers in developing countries and producers/traders in the developed world. Improved packaging and display of fish products from developing countries would also be helpful in achieving success, and here also cooperation with a company from a developed country could be useful. As fish resources in the developed world seem to be fully to over-exploited, fish and fish products will increasingly be provided by developing countries, provided health, quality and environmental aspects are given due consideration.

2. Market access and entry conditions

35. The *EU* has the highest degree of tariff protection for both raw and processed fish among the three main import markets. There is also a strong tendency of tariff escalation for processed products. For example, the tariff rate (MFN, applied rate 1996) is 12 per cent on frozen cod, 13.5 per cent on frozen cod fillets and coated cod fillets, and 20 per cent on other groundfish products such as fish fingers, breaded fish fillets, coated fish portions. After the implementation of the Uruguay Round, the bound tariffs are expected to remain stable or decrease only slightly.

36. In the *United States* and *Japan*, tariffs on fishery products are generally lower than in the EU, and will decline further. Tariff escalation will also decline. Many types of frozen fish enter the United States market duty free; frozen cod, frozen cod fillets and dried cod which currently face import duties will be bound at duty free after the implementation of the Uruguay Round. Japan applies tariff rates in the 5 to 7 per cent range for frozen fish products. The duties on frozen mackerel, frozen squid, frozen hake surimi and frozen cod roe, which are subject to import quotas, will be reduced by 30 per cent at full implementation of the Uruguay Round. While the tariff for dried cod will decline from 15 per cent to 10.5 per cent, tariffs on canned tuna imports into Japan will be reduced from 15 per cent to 9.6 per cent, and the tariff on canned shrimp will go down from 15 per cent to 4.8 per cent.

37. Generally, with regard to exports to developed countries, developing countries enjoy privileges in the context of the generalized system of preference (GSP). Exports of least developed countries also enter duty free to the major developed country markets. Moreover, with respect to fisheries product exports to the EU, the ACP countries, the Andean Pact countries, Panama and Central American countries are exempted from import duties. The EU also allows duty-free access for fish if a country has a fishing agreement with the EU (for example, Argentina). The LDCs, Caribbean countries and NAFTA members have preferential or zero-tariff access to the United States fish markets.

38. New regulations with regard to quality control that have been adopted by the main importing countries such as the United States and the EU will exert a strong influence on the fish-processing industry. This new regulation is based on the HACCP (Hazard Analysis Critical Control Point) principle, which requires plants to control the quality of the product in the transformation process. In

the coming years, all plants processing fish in the United States and the EU must have a HACCP plan and all imported fish products sold to these countries must come from plants with a HACCP plan. The investments needed to bring a fish processing plant up to the standards of a HACCP plan are substantial, and many companies, especially in developing countries, are of the view that the implementation of the new regulations on fishery products is *de facto* a non-tariff measure against processed products originating in developing countries. Changes in the plant itself is just a first step. Inspection services will have to evolve from the classical inspection of final samples to auditing the application of the HACCP system. In the coming years the industry will pass through a process of adaptation and investment. Apart from ensuring access to markets, HACCP application is also expected to reduce post-harvest food losses all along the food chain, contributing in this way to increasing actual availability of food for consumption.

39. In the EU, deadlines for the application of HACCP depend on national endorsement of the EU regulations. At the end of 1996, a total of 26 countries had signed agreements with the EU with regard to the export of fish and fish products, in accordance with HACCP. The United States HACCP-based mandatory regulation for fish and fish products will enter into force on 18 December 1997. If assurances are not given that the imported fish or fishery products have been processed under conditions that are equivalent to those required of domestic processors, the products will be denied entry. Thus, in order to ensure continuing access to the main markets, several countries, including Australia, Canada, Brazil, Thailand, Morocco and New Zealand have already passed regulations based on HACCP.

C. **Meat**

1. Market opportunities

40. World trade in the major processed meats was tentatively estimated at US$22 billion in 1995, and the annual growth rate between 1990-1995 is roughly 8 per cent. However, this figure refers only to beef, pork and poultry, and excludes trade among EU members.

41. In many developed countries, demand for meat has stabilized as per capita consumption is already high and population growth generally low. Only Japan can be considered to be a major growing market, while some developed countries - notably the EU and the United States - have sharply increased their exports in recent years, negatively affecting exports from developing countries. In contrast, in developing countries, rising populations and increasing consumer incomes create sharp increases in demand and, often, increased imports. Imports are increasing in the former Soviet Union as well, although this is constrained by low purchasing power. There are shifts between meats, however, especially in favour of poultry meat which is the fastest growing meat market in value terms.

42. Most international trade is in chilled/frozen meat, in the form of cuts; further processed products only account for about 10 per cent of world trade but world demand is increasing for further processed convenience products. Other changing demand characteristics that have implications for meat-processing companies are the shift to products with lower fat and salt content, and to more

"natural" products, as consumer concerns increase about food safety. More sophisticated retailers, especially in Europe, are increasingly demanding quality assurance all the way back to the producer and even to the feed supplier to ensure the consumer receives healthy products. This trend is likely to be reinforced with the implementation of HACCP, discussed in the previous section. Successful meat processing companies strive for further improvements in product range and quality in the light of specific needs of each market.

43. Although world demand is increasing, the meat industry faces over-capacity. This in turn has contributed to generally low investment in the sector in developing countries and lack of development of higher-value products. A consequence is the lack of branding, which can be an effective method of creating niche markets for processed meat at the international level. In some cases the identification of the country of origin, accompanied by generic promotion, can itself create a brand, such as "Danish bacon", "New Zealand lamb" and "US beef". The product, however, needs to be heavily marketed, which is only feasible in markets where large quantities are sold and probably requires a group of companies or a representative association of producers to undertake this activity. This could prove to be an expensive operation for developing countries with relatively small exports. Nevertheless, a large proportion of international trade in meat is in "commodity" products where price is the overwhelming determinant for purchasing decisions of importers.

44. Market segmentation is important in the meat industry, with different parts of the animal sold in different markets. For example, Namibia sells only cheaper forequarters in Southern Africa, and exports higher-valued hindquarter cuts to the EU. Similarly, for chicken, while the main markets are for breast and deboned legs, in China and Hong Kong there is a high demand for lower-valued parts such as feet, neck and wings.

45. In chilled and frozen **beef**, developed countries account for 80 per cent of world exports. Among developing-country suppliers, only Latin America, India and southern Africa are major exporters. Trade in chilled beef for the fresh market (prices up to $10,000 per ton) is more lucrative than trade in the frozen product, but market opportunities are mainly restricted to Japan (40 per cent of the total) and the EU. Frozen beef, on the other hand, accounts for about 70 per cent of trade in this category, but prices are much lower ($2,000 per ton) as much of it is used in further processed products (such as burgers) or sold to lower income consumers. The United States is the largest market, with other major markets (each importing more than 150,000 tons per annum) being the former Soviet Union, Japan, the Middle East, Egypt, and the Republic of Korea.

46. The world market is effectively divided into two parts, the Pacific zone (including the United States, Japan and the Republic of Korea) and the Atlantic zone. In general developing countries have been unable to export to the Pacific markets as they are not classified as "zero risk" in relation to the incidence of foot-and-mouth disease. Thus, despite improved market access conditions, technical barriers will continue to prevent trade with some of the more lucrative markets unless exporting countries undertake costly campaigns (as Uruguay has done) to become "zero risk". This means that most developing countries will

have to concentrate on markets such as the Middle East/North Africa, the Russian Federation and Eastern Europe, and will have to compete with EU beef which will continue to be sold at subsidized prices in these markets.

47. There is only a small trade in further processed beef products such as corned beef, other canned cooked products, and smaller volumes of frozen cooked products which are demanded particularly in the EU and the United States. Developing countries account for 75 per cent of world exports of these products.

48. Trade in chilled and frozen **pork** is smaller and more concentrated than for beef, partly owing to lower world demand (e.g. for religious reasons). A developing country that wants to enter this market would also find strong competition from four dominant, sophisticated, established exporters (accounting for 75 per cent of world trade): the EU (especially Denmark), Canada, the United States and Taiwan, Province of China.

49. The more lucrative trade in chilled pigmeat is mainly limited to Japan but the highest proportion imported to this market is still in frozen form (70 per cent); Japan is by far the largest importer accounting for 45 per cent of world trade in chilled pigmeat and also pays the highest prices (up to US$ 6,000 per ton). The other major import market is the United States (15 per cent). Otherwise there are few imports into the higher-priced developed markets, with other pigmeat going to "commodity" markets such as Russian Federation and Eastern Europe, while the Republic of Korea is now starting to import significant quantities.

50. For a developing-country exporter, vertical integration of pork production and processing is often considered the best marketing strategy by ensuring regular supplies of consistent high-quality product. At the same time, as is a key feature of the Danish industry, returns should be maximized by selling cuts on a number of markets depending upon which market offers the best return for any particular cut, while at the same time ensuring that the product is tailored to meet the requirements of the importer.

51. World trade in further processed pigmeat products is especially concentrated, with the EU accounting for 60 per cent of world exports. For other countries, exports have been static or even fallen for Eastern Europe and China. Among developed countries, only Japan and the United States are large markets. Countries such as Russian Federation are importing increasing volumes of generally low-priced products, to supplement local production.

52. World trade in chilled and frozen **poultry** meat has grown by about 20 per cent per year during the 1990s. This is faster than both beef and pigmeat. Apart from a large increase in world demand, an important factor behind this rapid growth is some domestic supply shortages, especially in Russian Federation, which is now the main import market taking over 800,000 tons of parts per year. Given the growing world market and that poultry production and processing is the easiest to establish of all the meats, it is probably the most attractive for developing countries provided there is access to cheap supplies of feed. Competition, however, will be strong from the established exporters. Two thirds of world trade is in frozen chicken parts, especially boneless breast for use

in further processing. Trade in more lucrative chilled poultry meat is very small, but growing, and mainly confined to Japan; trade in frozen turkey parts is also rising.

53. Poultry exports are dominated by developed countries. The United States and the EU provide 75 per cent of the total. Exporters in Brazil, China and Thailand are well established and their trade is likely to continue to grow as the EU is forced to cut back on its subsidized exports. Other than Japan, and to a small extent the EU, imports are mainly into transition economies such as Russian Federation and developing countries (80 per cent of world trade), particularly the Middle East, South-East Asia and South Africa.

54. In spite of increased consumer demand for convenience products, the world market in further processed poultry meat products is small, amounting to only about 150,000 tons per annum, but this seems likely to rise in future. Of the developing countries, only Thailand has developed a significant export trade in such products, mainly to meet the increasing demand in Japan. Russian Federation is one of the main importers.

55. Offal such as livers, kidneys, beef tongues and oxtails have a high demand on some markets, especially in Asia and in some EU countries (France and the United Kingdom). The demand for exotic meats (such as ostrich and other game meat and venison) is also growing. These exotic meats are already offering increased market opportunities for countries in southern Africa, for example.

56. Technology for meat processing is widely available on the world market and is not complicated for the earlier stages of processing (slaughter and cutting/packaging) but further processing technology is becoming more sophisticated. Greater use of advanced machinery and equipment and gradual adoption of mechanization and automation will bring down unit processing costs. Computer controlled systems are playing an increasing role in recipe formulation, logistic and product control systems, including the increasingly important area of product traceability all the way to the farmer.

57. Most examples of successful experiences by developing countries come from the poultry sector. Brazil and China, the main exporters of poultry meat, benefit from cheap feed prices and low labour costs. In Brazil climatic conditions also help in faster bird growth. Chinese industry benefits from foreign investment in the form of joint ventures and its proximity to Japan. Another major exporter, Thailand, has relatively higher costs. This has led major Thai companies to invest in China. Poultry processors in Thailand are changing their operations towards higher value added items, including cooked products.

58. In meat processing, particularly in poultry, full integration of the operation helps success. There is a need to control the whole chain from the supply of inputs such as feeds, to the marketing of the product. Sadia, the largest exporter in Brazil, and Charoen Pokphand Group, a Thai company in China, are examples of successful applications of such strategies. Production of live birds is either done by the company itself or growers under contract, with the company supplying all the inputs and taking the birds. An example of a similar strategy in the case of pigmeat is a joint venture, Constar in Poland, where feed and credit are supplied to the farmers by the firm. The processing plant is

designed to conform to United States and EU hygiene requirements. The strong presence of Taiwan Province of China in the chilled boneless pork markets in Japan can be attributed to high quality, as well as factors such as geographical proximity, cultural similarities and some Japanese investment in its pigmeat industry.

59. Important improvements in packaging are being made in order to extend shelf life and increase the scope for processing companies to reach their target markets. Although, in general, branding at the international level is limited, some distributors (e.g. Somitomo in Japan, Brooke Bond and Princes in the United Kingdom use their own brands on meat produced, processed, packaged and labelled in exporting countries.

2. Market access and entry conditions

60. Under the Uruguay Round Agreements, commitments have been made by major importers to reduce tariff barriers for all types of meat. The liberalization measures will be implemented by 2000 or 2001 by developed countries, and by 2004 or 2005 by developing countries. However, even after the reductions, tariffs will remain substantial. Moreover, the Special Safeguard Clause (SSC), whereby the quantity of imports can be controlled if it causes undue market disruption, would prevent a large increase in imports for a particular market. Asian countries, especially Japan and the Republic of Korea, have provided the greatest concessions on market access for meat.

61. Tariffs for chilled boneless beef in the EU will decline from 20 per cent plus ECU 4700 per ton to 12.8 per cent plus ECU 3034 per ton; bone-in pork legs, from ECU 1215 per ton to ECU 778 per ton; boneless chicken cuts from ECU 1600 per ton to ECU 1024 per ton. In the United States, Japan and Republic of Korea, respectively, tariffied duties on beef will decline from 31.1 per cent to 26.4 per cent, 93 per cent to 50 per cent (already implemented), and 44.5 per cent to 40 per cent. In spite of the subsidy reduction commitments, the EU in particular will continue to export large amounts of subsidized meat, with the exception of poultry, even after 2000. Nevertheless, eventually, subsidy reductions will have a significant bearing on world trade and provide some opportunities for developing countries in third markets. Since most developing countries have historically refrained from subsiding their exports, they are in a better position to gain from the Uruguay Round Agreements. This also applies to exporters in some of the major developed economies such as Australia and even the United States as exports under its Export Enhancement Programme (EEP) were never substantial.

62. In the Uruguay Round Agreements, developed countries in particular have been reluctant to increase market access in order to protect their domestic industries, some of which are high-cost. One issue is that, while import tariff rates are now bound within the Agreements, tariffs have only been lowered in a few instances, and in some others they have actually been raised compared with the early 1990s. While some countries, particularly in Asia, have increased preferential access for meat under the Agreements, actual imports have already often exceeded their Uruguay Round commitments.

63. Increased stringency of technical regulations offsets some of the benefits from the Uruguay Round Agreements on tariff and export subsidy reductions. Sometimes countries set national norms above accepted international requirements covering areas such as food safety, animal disease, product composition (e.g. in further processed meat products), packaging, labelling and presentation and shortening of acceptable shelf life (which can place imported products at a disadvantage especially for chilled items).

64. Under the Uruguay Round Agreements, the Sanitary and Phytosanitary Measures (SPS) and the Agreement on Technical Barriers to Trade (TBT) set out such international standards. While additional stringency in national legislation is allowed, it must be based on scientific evidence and not seen as a protectionist measure. Under the Uruguay Round Agreements, procedures have been introduced whereby exporters are now allowed to challenge some of the importing country's technical regulations if they are perceived to be a protectionist measure.

65. The main technical barriers for many countries, especially those of developing countries, are in the area of animal health. Another important issue is standards for hygiene and sanitation at meat processing plants. Exporting countries have to meet the requirements of the importing country. A key area affecting chilled and frozen beef in particular relates to foot-and-mouth disease. Requirements for North America and the Asia region are so tight that they have excluded South American and African countries from exporting to this region. For foot-and-mouth disease and classical swine fever, the principle of "minimum risk" has not been found adequate and the principle of "zero risk" has been adopted. The SPS allows for a zoned approach, whereby a product can be exported from a disease-free area of a country that may not be totally disease-free, provided effective controls between the two areas are in operation. This could have major benefits in the future for exporting countries previously barred from most Asian markets. However, there have been reports of major disease outbreaks, especially in East Africa, due to budgetary cutbacks that have affected extension services and the availability of drugs and vaccines.

D. **Tropical beverages**

1. Market opportunities

66. Global trade in tropical beverages - tea, coffee, cocoa, and chocolates - is estimated at roughly US$29 billion in 1995 (see table). It is a sector marked by strong price and volume fluctuations.

67. Global **coffee** consumption grew modestly from 94 million bags in 1990 to 98 million bags in 1996. More than three quarters of world coffee consumption takes place in the importing countries, led by Western Europe (36 per cent) and the United States (19 per cent), which are both mature markets. In the main coffee-consuming countries, over 75 per cent of coffee is consumed as roasted and ground, 20 per cent in soluble forms and the remainder in products derived from coffee extracts. Soluble coffee consumption is fairly stable in the mature coffee markets but has increased sharply in the emerging markets of Asia and the Pacific and to a lesser extent in Central and Eastern Europe and Southern Europe. Ready-to-drink coffee is consumed mainly in Asia, with some consumption growth

seen recently in the United States. Russian Federation and China hold the greatest potential as income per capita increases and the shift in tastes from tea to coffee continues.

68. Growing niche markets for specialty coffee include Japan for gourmet varieties, and the United States where, despite a generally falling demand for coffee due to health considerations, the demand for gourmet/specialty coffee is projected to surpass US$3 billion by 1999. Most of the market growth for gourmet varieties has been for single-origin products such as Kenyan and Colombian coffee. In Japan and South-East Asia, there is a growing demand for canned and ready-to-drink coffee.

69. Over 90 per cent of coffee traded on the international market is in the form of green beans. The bulk of coffee processing, both roasting and soluble manufacture, takes place in coffee-importing countries. Soluble coffee trade (5 per cent) is larger than roast and ground (3 per cent). Latin America is the most important exporting region for coffee, accounting for more than half of total exports. In the past decade, African exports have fallen while those from Asia have increased by about 30 per cent. Brazil and Colombia are the main exporters of soluble coffee and coffee extracts.

70. Colombian coffee has been particularly successful in establishing a brand image. The Federación Nacional de Cafeteros does the promotion through advertising campaigns using their logo attached to a "100 per cent Colombian" label. For instance, to establish a brand image, the label and logo appear on roast and soluble coffee, as well as on cups, napkins, and sugar packets which accompany Colombian coffee.

71. In the world trade of **cocoa** and cocoa products, in terms of bean equivalents, beans account for slightly less than half of the total, chocolate products for 20 per cent, cocoa butter for 14 per cent, cocoa powder and cake for 12 per cent, and cocoa liquor for 6 per cent. Concerning exports from cocoa-producing countries, however, beans make up 79 per cent, cocoa butter 10 per cent, cocoa powder 7 per cent, cocoa liquor slightly less than 3.5 per cent, and chocolate and chocolate products less than 1 per cent. Cocoa-producing countries account for about one third of world trade in cocoa powder and cake. In the case of chocolate and chocolate products, their share in world trade is less than two per cent. This is a reflection of the overwhelming dominance of the importing countries in cocoa processing and cocoa-based industries. Among producing countries, Côte d'Ivoire, Brazil and Ecuador are the largest exporters of cocoa liquor; in the case of cocoa butter, the largest exporters are Malaysia, Côte d'Ivoire, Brazil and Indonesia; for cocoa powder and cake, Brazil, Malaysia and Côte d'Ivoire come top. Brazil is by far the largest exporter of chocolate among producing countries, followed by Malaysia, Mexico, Indonesia and Colombia. The booming domestic market for chocolate in Brazil has contributed considerably to the expansion of the industry and exports.

72. World demand for cocoa has been growing at about 3 per cent per year, and this trend is expected to continue over the next decade. Growth in major markets of Western Europe and North America is likely to slow down, but this is expected to be counterbalanced by expansion in the emerging markets of Asia, Latin America and Central and Eastern Europe. Competition among major producers of cocoa

products has led to the development of an increasing range of innovative products, such as chocolate-containing snacks, which are then heavily advertised with brand names. The introduction of new products which contain cocoa continues but the trend for these products is to have a lower cocoa content.

73. Most **tea** is traded internationally in bulk. Again, packaging, blending and further processing takes place usually in importing countries. The main tea exporters are Kenya and Sri Lanka, followed by China and India. The major importing markets are Russian Federation, the United Kingdom, Japan and the United States, which together account for half of the consumption in the importing countries. The proportion of packaged tea imports tends to be under 10 per cent, with the majority of packaged trade taking place within the EU. Exports of instant tea by tea-producing countries is small; by way of comparison, the United States produces about three times more than the totality of these exports. Instant tea, which is mainly sold in vending machines and tea mixes, is produced in only three tea-growing countries, India, Sri Lanka and Kenya. The ready-to-drink tea market is largely confined to the United States and Japanese markets, although there has recently been some growth in consumption in Europe, especially Switzerland and Italy, and in the Far East. World consumption of specialty teas, including flavoured teas, green tea, oolong tea and herbal and fruit teas, is expected to rise considerably. Green tea is likely to take over some market share from herbal and decaffeinated teas, although it may have an impact in the black tea market as well.

74. Consumption patterns for tea differ among markets. For example, in the largest European market, the United Kingdom, tea bags account for the bulk of the market. In the United States, ready-to-drink tea such as iced tea accounts for an estimated 50 per cent of the market by value. Herbal and green teas account for about 30-35 per cent of the market and 8-10 per cent is made up of specialty (including green) teas. The market in Japan, itself a tea-producer, is the largest in the world in terms of sales value. The black tea market is dominated by ready-to-drink teas, accounting for 80 per cent of the sales in the black tea market.

75. Global tea consumption has largely stabilized and is expected to increase by about 1 per cent annually in the next few years. Although tea still dominates beverage consumption in Central and Eastern Europe and the Asia and Pacific region, it has been losing ground to soft drinks and soluble coffee. The expansion of specialty tea consumption in the United States, Japanese and European markets has taken place at the expense of regular tea sales, and therefore does not add to global tea demand. This trend is expected to continue. Increased consumption of ready-to-drink tea which has already proved popular in the United States and Japan, however, adds to total tea sales by taking market share away from soft drinks. Ready-to-drink sales are expected to expand in Europe and the Asia and Pacific region. Herbal tea mixes and green tea are likely to undergo considerable expansion owing to their beneficial health properties. Flavoured teas may also enjoy some success on the back of herbal teas.

2. Market access and entry conditions

76. Tariffs on coffee, cocoa and tea imports into consuming countries are becoming less problematic to origin countries. As a result of the Uruguay Round,

tariffs on these products will be reduced by 35 per cent in North America and 29 per cent in Western Europe. Exporters from origin countries face lower tariffs under the generalized system of preferences. Moreover, the ACP countries face zero tariffs in the EU. In spite of tariff reductions as a result of the Uruguay Round, however, the post Uruguay Round bound rates will continue to display considerable tariff escalation for processed products, particularly in the EU and Japanese markets. For example, in the EU and Japan, while raw coffee and cocoa will enter duty free, bound tariffs on instant coffee will be 9 per cent and 8.8 per cent, respectively. For cocoa powder and chocolate, the tariffs will be, respectively, 8 per cent and 12 per cent (plus specific duty) in the EU, and 12.9 per cent and 21.34 per cent in Japan. In many growing Asian markets, including the Republic of Korea, Taiwan Province of China, Thailand and the Philippines, high tariffs are used to protect domestic industries.

77. Although the growing trade in cocoa butter and other cocoa products as well as bulk soluble coffee suggests that there is scope for origin countries to increase the production and export of such products, these markets are highly price-competitive and there is excess processing capacity. Success in tapping markets, particularly for processed products, depends on many factors apart from protectionism. These include quality requirements, labelling and health regulations for processed products, as well as the need for market information and contacts.

78. Increased emphasis placed on rigorous quality control for processed products is one factor which makes exporting of such products considerably more difficult than that of raw material. For example, concerns by importers about impurities in cocoa butter or liquor from origin countries deter such exports. While there are no health regulations which deal specifically with coffee, tea and cocoa, in most consuming countries there are regulations which forbid the importation of any food which is "unfit for human consumption" or unsound and unwholesome. Coffee, tea and cocoa at the point of sale, or at the point of import, if shipped pre-packed, must also satisfy labelling requirements.

79. Labelling requirements differ among markets. In the case of the EU, labelling requirements stipulate that the ingredients (including additives), net weight, producer's name, country of origin and "best before" date must be placed on the wrapping of the end product, and in the language of the export market. The most exacting food and health regulations are applied in Japan, where the regulations dealing with the import of foodstuffs are extremely complex and detailed.

80. Market information and contacts are particularly important for exporting processed cocoa products because they are generally tailored to the needs of an individual customer. Trade is also more complicated as contract terms for processed products depend on negotiations between buyers and sellers and vary from company to company. There is no equivalent to the standard contracts which are used for trade in raw materials.

81. Three additional factors create difficulties for producers of final products in the origin countries regarding market entry at the retail level. These are: (a) Blending - Consuming country processors use raw materials from several origins to meet the varying specifications of end-users/consumers. This

works against processors at origin, since they are often constrained to use the raw material available locally; (b) Packaging - Tea and roast and ground coffee quickly deteriorate if they are not correctly packaged. Where they are to be packaged for retail sale, this places high quality demands on origin processors; (c) Industry concentration - High levels of industry concentration make it difficult for origin processors to gain market access. For example, ten major companies dominate the world cocoa processing industry.

82. In some cases, transnationals have established joint venture operations which secure market entry. For example, Nestlé operates instant coffee plants in Côte d'Ivoire, Brazil, Indonesia, Thailand and China. For independent soluble coffee manufacturers in origin countries, a number of specialized trading companies act as intermediaries between processors and retailers, and in many cases these companies also provide technical assistance to assist the manufacturers in gaining market access. Plants have also been established by major transnational companies in cocoa processing. The majority of successful large cocoa-processing operations in cocoa-producing countries is in the hands of the transnationals - at least on a joint venture basis. For example, Cacao Barry operates processing facilities in Côte d'Ivoire and Cameroon, the Hosta group have processing operations in Ghana, Cargill and ED & F Man have processing operations in Brazil, and Mars have recently opened an operation in Indonesia. In Asia, the origin processors tend to be more independent and supply manufacturers within the region. In the production of instant tea as well, transnationals play a crucial role in the origin countries. Of the four instant tea processing operations in developing countries, only one, Tata Tea, in India, is not a subsidiary of a transnational or foreign-owned. Nestlé operates another plant in India, Unilever in Sri Lanka, and James Finley in Kenya.

83. Although brand names are generally associated with transnationals, a large scale and high quality of production is conducive to the creation and acceptance of brands from developing countries, as illustrated by the experiences of packaged tea exports from India and Sri Lanka, and single origin coffee brands from Colombia and Kenya.

84. The successful exporters of soluble coffee, Brazil and Colombia, developed these industries in the 1970s when price competition was not as intense as it is currently. Moreover, the high capital costs have often been met by virtue of being part of large trading companies or joint ventures with foreign investors. In Colombia, Colcafe is a subsidiary of Colombia's largest food manufacturing operation, while the Federación de Cafetoros operates the country's only freeze-dried facility. The recently opened Indonesia soluble plant is owned by the largest coffee exporter and two Japanese companies. It is also important to exploit the considerable economies of scale in soluble coffee production. In Brazil, and to a lesser extent in Colombia, supply agreements with United States rosters that also provided the technology and expertise, have been instrumental in this respect. The soluble coffee produced was guaranteed to the United States roaster for a period of time, usually 10 years. With the subsequent move away from spray-dried soluble coffee in the United States, Brazilian exporters reached supply deals with the state trading companies in the former USSR, thus maintaining security of markets.

85. Government assistance also played an important role in several successful experiences. Exporters of packaged tea, for example, benefited from lower export taxes and government subsidies in India and Sri Lanka. Similarly, in Côte d'Ivoire, export tax on soluble coffee is lower than that on green coffee.

86. Origins that have been most successful in exporting processed products are those that have large domestic markets and whose processing operation is not totally dependent on export markets. This can be said of Brazil, Colombia, India and Indonesia. Processing for the domestic market has the added advantage that a proportion of the less sought after raw materials can be processed and marketed internally, which raises the quality of exported cocoa and coffee beans and generates a price premium on the international market. Exports to large or growing regional markets, where the quality of packaging is not as great a factor as in the developed-country markets, and membership in a regional trade grouping have also generated successful experiences.

III. GENERAL CONCLUSIONS AND QUESTIONS FOR DISCUSSION

A. General conclusions

87. The review of market opportunities and constraints for vertical diversification in four subsectors of the food processing sector in developing countries has revealed a number of common elements besides the specificities of each area. These common elements are summarized in the following paragraphs.

88. Current opportunities for export in processed products covered in this report are identified principally in three groups of countries. The first relates to markets expanding as a result of increased incomes, especially developing countries such as those in South-East Asia. The second comprises economies in transition, such as the Russian Federation and countries in Eastern Europe. Thirdly, there are those developed countries and advanced developing countries which are experiencing changing lifestyles, and where demand for processed convenience goods provides significant potential niche markets for suppliers who are able to identify innovative or new products.

89. Tariff barriers have been considerable, particularly in the pre-Uruguay Round setting. However, they have not prevented the success of various countries. Market access privileges have been effective only in some cases for promoting market entry. The reduction of agricultural subsidies (which will, nevertheless, continue to some extent) by major developed countries is likely to be more critical than the reduction of tariff rates for developing-country exporters competing with developed countries. Regional trade blocs are also helpful in expanding trade.

90. Market entry is generally more difficult for processed products than for raw materials owing to the more complex and exacting requirements that exporters must comply with for processed products. These requirements cover quality and health considerations as well as labelling rules, which may differ significantly among markets. The predominance of established transnational companies in production and trade also makes market entry difficult for individual developing country firms. In this context, links with transnationals or with importers in

the consuming markets, in the form of joint ventures, supply agreements, and the use of trading houses, have been instrumental in many successful experiences. Success also hinges on reliability of supplies which need to be available at specific times in large quantities and of homogeneous and consistent quality. This may require considerable organizational and logistical expertise. Geographical or cultural proximity to the consuming market, in general, helps in gaining market access. Similarities in tastes and cultures are important factors in this regard. Market segmentation, whereby different export markets are supplied with different products, is a strategy often followed in order to maximize returns.

91. A large domestic market is conducive to the development of processed exports. This opens up possibilities for benefiting from economies of scale, and helps firms in using different grades or varieties of raw materials and processed products for local and foreign markets. Sub regional markets can be a first step for exporting processed foods.

92. Brand names may help in increasing earnings, but having them recognized and accepted is difficult and costly. It also requires a concerted effort by producer associations and/or governments. Investment costs are significant for the establishment of viable processing plants and for undertaking marketing efforts. Governmental assistance such as tax breaks and subsidies as well as technological assistance have been helpful in the establishment of successful processing operations in some instances.

B. Questions for discussion

93. In the light of these general conclusions, the experts may wish to consider which of the successful experiences mentioned in the report - as well as other cases presented by the participants in the Meeting - can be replicated by those countries that have, so far, been unsuccessful, and point out the specific conditions that need to be fulfilled in this respect. They may wish to include the following issues, grouped under three broad headings, among the areas in which they would formulate practical proposals for enterprises, governments of exporting and importing countries, and intergovernmental organizations:

1. Market access conditions related to the Uruguay Round

(a) What new opportunities in the export-oriented food processing sectors of developing countries do you perceive to have been generated by the conclusion of the Uruguay Round? What needs to be done by corporations and governments to better take advantage of this new framework?

(b) What types of information, to be provided by governments and intergovernmental organizations, are necessary if exporters from developing countries are to identify, analyse and capture market opportunities and niche markets, and establish business contacts? What tools do developing-country exporters need to make full use of the available information?

2. Corporate strategies for seizing market opportunities

(a) What kinds of partnerships (strategic alliances, joint ventures, direct investment, mergers and acquisitions) and of activities (production, marketing) in the specific subsectors work best to promote exports and develop domestic supply capacity?

(b) What are the optimal marketing strategies to be pursued in different markets, in particular new and emerging ones?

(c) What are the prerequisites, including market and product characteristics, for launching brand names, images or labels?

(d) Can formal and/or informal cooperation, such as exporters associations, reduce the costs associated with production and exporting? If so, how can such cooperation best be established?

3. Domestic conditions and related policies

(a) Under what conditions, and how, can the domestic market be used as a "platform" from which to generate, or expand, exports? What steps could be taken to launch economically viable export-oriented operations when domestic markets are small? In particular, how can indigenous food processing be developed into viable exports?

(b) What are the best ways to ensure exporters' understanding of, and compliance with, quality, health and environmental requirements in importing markets?

(c) What should the exporting and importing country governments, trade associations and individual firms do, in particular, to establish systems conforming to the Hazard Analysis Critical Control Point (HACCP) principle?

(d) How can appropriate local technologies be developed that meet the quality, health and environmental requirements in importing markets, or is it preferable to transfer existing technologies?

(e) How can linkages with complementary sectors be promoted to develop industrial clusters which would lower input costs, support processing equipment industry and improve marketing? How can forward and backward linkages be enhanced?

(f) In the light of budgetary constraints, what are the priority areas where government involvement and support is needed to augment export oriented food processing?

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